

PCT REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum)**Box No. I TITLE OF THE INVENTION**

HYBRID CYCLE COMBUSTION ENGINE AND METHODS

Box No. II APPLICANT☐ This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The Country of the address indicated in this box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

Telephone No.

Facsimile No.

Teleprinter No.

Applicant's registration No. with the Office

LIQUIDPISTON, INC.

77 Kirkwood Road

West Hartford, Connecticut 06117

State (that is, country) of nationality: US

State (that is, country) of residence: US

This person is applicant for the purposes of:

☐ all designated States☒ all designated States except the United States of America☐ the United States of America only☐ the States indicated in the Supplemental Box**Box No. III: FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)**

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The Country of the address indicated in this box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

☐ applicant only☒ applicant and inventor☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

SHKOLNIK, Alexander Cerge

106r Sciarappa Street

Cambridge, Massachusetts 02141

State (that is, country) of nationality: US

State (that is, country) of residence: US

This person is applicant for the purposes of:

☐ all designated States☐ all designated States except the United States of America☒ the United States of America only☐ the States indicated in the Supplemental Box☒ Further applicants and/or (further) inventors are indicated on a continuation sheet.**Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☒ agent☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Telephone No. (617) 248-

Facsimile No. (617) 248-7970

Teleprinter No.

Agent's Registration No. with the Office: 50,773

BELOBORODOV, Mark L.

Testa, Hurwitz & Thibeault, LLP

High Street Tower

125 High Street

Boston, Massachusetts 02110 US

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Continuation of Box No. III FURTHER APPLICANTS AND/OR (FURTHER) INVENTOR(S)*If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The Country of the address indicated in this box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

SHKOLNIK, Nikolay

77 Kirkwood Road

West Hartford, Connecticut 06117

This person is:

☐ applicant only☒ applicant and inventor☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality: US

State (that is, country) of residence: US

This person is applicant for the purposes of:

☐ all

designated States

☐ all designated States except the United States of

America

☒ the United States of America only☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The Country of the address indicated in this box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

☐ applicant only☐ applicant and inventor☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

☐ all

designated States

☐ all designated States except the United States of

America

☐ the United States of America only☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The Country of the address indicated in this box is the applicant's state (that is, country) of residence if no state of residence is indicated below.)

This person is:

☐ applicant only☐ applicant and inventor☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

☐ all

designated States

☐ all designated States except the United States of

America

☐ the United States of America only☐ the States indicated in the Supplemental Box☐ Further applicants and/or (further) inventors are indicated on another continuations sheet

Supplemental Box

If the Supplemental Box is not used, this sheet need not be included in the request.

1. If, in any of the Boxes, except the Boxes Nos. VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No. ..." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:

(i) if more than two persons are involved as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;

(ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;

(iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European OAPI patent) for the purposes of which the named person is inventor;

(iv) if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;

(v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "Continuation" or "Continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;

(vi) if, in Box No. VI, there are more than five earlier applications whose priority is claimed: in such case, write "Continuation of Box VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.

2. If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of the statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

3. If the applicant intends to make an indication of the wish that the international application be treated, in the United States of America, as a continuation or continuation-in-part of an earlier application: in such a case, write "United States of America" or "US" and the indication "continuation" or "continuation-in-part" and the number and the filing date of the parent application (Rules 4.11(a)(iv) and 49bis.1(d)).

Box No. IV. Agent (continued)/ Reg. No.

ABRAMSON, Andrew F.	52,538
BEHRAKIS, Elias C.	47,416
BELOBORODOV, Mark L.	50,773
BLASI, Robert S.	50,389
BRODOWSKI, Michael H.	41,640
CHEN, Fangli	51,551
COTTER, John J.	38,116
DE VELLIS, James C.	52,814
DONAHOE, Robert V.	46,667
FAIRCHILD, Brian A.	48,645
FAJKOWSKI, James E.	54,089
FIORILLO, Jason P.	52,892
FORCIER, John V.	42,545
FRANK, Steven J.	33,497
FREEMAN, Kia L.	47,577
GAFF, Brian M.	44,691
GREENHALGH, Duncan A.	38,678
HAULBROOK, William R.	53,002
HEFFAN, Ira V.	41,059
HUNTER-ENSOR, Melissa	55,289
JAGENOW, Andrew L.	51,842
KLINE, Douglas J.	35,574
KROON, Christopher S.	54,241
LAWRENCE, M. Brad	47,210
MEUNIER, William A.	41,193
MOITOSO, Jennifer G.	51,752
MOORE, Ronda P.	44,244
PIROZZOLO-MELLOWES, R. Jan	53,471
REYES, Jason	41,513
STAMOS, Christopher W.	35,370
TOSTI, Robert J.	35,393
TURANO, Thomas A.	35,722
US, Natasha C.	44,381
VITO, Christine C.	39,061
WHYTE, Carolyn E.	55,728
WILSON, Daniel A.	45,508

All of the above are registered patent practitioners at Testa, Hurwitz & Thibault, LLP.

Box No. V DESIGNATIONS

The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- ☐ DE Germany is not designated for any kind of national protection
- ☐ KR Republic of Korea is not designated for any kind of national protection
- ☐ RU Russian Federation is not designated for any kind of national protection

(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V as to the consequences of such national law provisions in these and certain other States.)

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member of WTO	regional application: * regional office	international application: receiving office
item (1) 12 JANUARY 2004 (12-1-04)	60/535,891	US		
item (2)				
item (3)				

- ☐ Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) *(only if the earlier application was filed with the office which for the purposes of this international application is the receiving Office)* identified above as:

- ☐ all items ☒ item (1) ☐ item (2) ☐ item (3) ☐ item (4) ☐ item (5) ☐ other, see Supplemental Box

* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed Rule 4.10(b)(ii):

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA/EP

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year) _____ Number _____ Country _____
(or regional office)

Box No. VIII DECLARATIONS

The following declarations are contained in Boxes Nos. VIII(I) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration)

- | | | | |
|--|---|---|--|
| <input type="checkbox"/> Box No. VIII(i) | Declaration as to the identity of the inventor | : | |
| <input type="checkbox"/> Box No. VIII(ii) | Declaration as to the applicant's entitlement, as at the international filing date to apply for and be granted a patent | : | |
| <input type="checkbox"/> Box No. VIII(iii) | Declaration as to the applicant's entitlement, as at the international filing date to claim the priority of the earlier application | : | |
| <input type="checkbox"/> Box No. VIII(iv) | Declaration of inventorship (only of the purposes of the designation of the United States of America) | : | |
| <input type="checkbox"/> Box No. VIII(v) | Declaration as to non-prejudicial disclosures or exceptions to lack of novelty | : | |

Box No. IX CHECK LIST; LANGUAGE OF FILING

This international application contains: (a) in paper form, the following number of sheets:	This international application is accompanied by the following items(s) (mark the applicable check-boxes below and indicate in right column the number of each item):	Number of items
Request (including declaration sheets) : 5	1. <input checked="" type="checkbox"/> fee calculation sheet	: 1
description (excluding sequence listing part) : 47	2. <input type="checkbox"/> original separate signed power of attorney	:
claims : 5	3. <input type="checkbox"/> original general power of attorney	:
abstract : 1	4. <input type="checkbox"/> copy of general power of attorney; reference number, if any	:
drawings : 45	5. <input type="checkbox"/> statement explaining lack of signature	:
Sub-total number of sheets : 103	6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s)	:
Sequence listing:	7. <input type="checkbox"/> translation of international application into (language)	:
tables relating thereto:	8. <input type="checkbox"/> separate indications concerning deposited microorganisms or other biological material	:
(for both, actual number of sheets in paper form, whether or not also filed in computer readable form; see (c) below)	9. <input type="checkbox"/> sequence listing in computer readable form (indicate also type and number of carriers)	:
Total number of sheets : 103	(i.) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application)	:
(b) <input type="checkbox"/> only in computer readable form (Section 801(a)(I))	(ii.) <input type="checkbox"/> (only where check-box (b)(i) or (b)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter	:
(i) <input type="checkbox"/> sequence listings	(iii.) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column	:
(ii) <input type="checkbox"/> tables related thereto	10. <input type="checkbox"/> tables in computer readable form related to sequence listings (indicate type and number of carrier)	:
(c) <input type="checkbox"/> also in computer readable form (Section 801(a)(ii))	(i.) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802 (b-quarter) only (and not as part of the international application)	:
(i) <input type="checkbox"/> sequence listings	(ii.) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802 (b-quarter)	:
(ii) <input type="checkbox"/> tables related thereto	(iii.) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column	:
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained	11. <input type="checkbox"/> other (specify)	:
(i) <input type="checkbox"/> sequence listings		
(ii) <input type="checkbox"/> tables related thereto		
(additional copies to be indicated under item 9(ii) and/or 10(ii), in right column):		

Figure of the drawings which should accompany the abstract:

Language of filing of the international application:

English

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).


 Mark L. BELOBORODOV, Attorney for Applicant
For receiving Office use only

1. Date of actual receipt of the purported international application:	2. Drawings: <input type="checkbox"/> received: <input type="checkbox"/> not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date and timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more competent): ISA/	
6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only

Date of receipt of the record copy by the International Bureau: